

XVIII. *Descriptions of New Genera and Species of Exotic Hymenoptera.* By FREDERICK SMITH, V.-P. and late Pres. Ent. Soc.

[Read 7th June, 1869.]

THE majority of the insects described in the present paper are in the British Museum; all are of great rarity, and some present such new combinations of characters that I have found it necessary to construct four new genera for their reception; several of the species described are in Mr. Du Boulay's private collection of *Hymenoptera*, lately purchased for the National Museum. I hope shortly to offer to the Society descriptions of some of the *Apidæ* in the same collection, which contains several insects which will form types of new genera.

Fam. MUTILLIDÆ.

Genus METHOCA.

Methoca mandibularis.

Male. Length $7\frac{1}{4}$ lines. Black, shining and punctured, the mandibles yellow.

Head: shining, and strongly punctured; the face and mandibles with long white hairs, those on the rest of the head are shorter and thinner; the antennæ as long as the thorax and first segment of the abdomen; the anterior margin of the clypeus rounded, and with a notch in the middle; the mandibles yellow, with their apex nigropiceous. Thorax coarsely punctured, the punctures close and more or less confluent on the metathorax, on the pro- and meso-thorax they are wider apart, but coarse, and here and there confluent; the metathorax with a central longitudinal channel, and, as well as the thorax beneath, thinly clothed with hoary pubescence; the legs obscurely rufo-piceous; wings subhyaline, darkest towards the apex of the wings, a fuscous cloud occupies the marginal cell; the nervures black. Abdomen: finely and distantly punctured, the punctures strongest towards the apex; the petiole of the abdomen compressed, and with a thin sharp edge; the first segment globose at the apex, the

rest of the segments with their margins constricted; the apical mucro stout and curving upwards beyond the apical segment.

Hab.—Shanghai.

This insect was presented to me by H. De Rivaz, Esq.

Fam. SCOLIIDÆ.

Genus PTEROMBRUS.

Head wider than the thorax, subglobose; eyes lateral and oblong-ovate; antennæ filiform, inserted on each side of a bituberculate prominence in the middle of the face; the scape obconic, the first joint of the flagellum globose, and inserted in a cavity at the apex of the scape, the following three joints of about equal length, the remaining ones slightly decreasing in length to the apical one. Thorax elongate, the prothorax produced anteriorly into a short neck, its posterior margin extending backwards to the insertion of the wings; the metathorax oblong, its apex rounded; *the anterior wings with one elongate marginal cell pointed at its apex; three submarginal cells, the first nearly as long as the two following, the second quadrangular, and narrowed towards the marginal; the third obliquely quadrate; legs moderately stout, with the tarsi long and slender. Abdomen elongate, petiolate, its apex pointed and terminated by an acute style, the aculeus exerted.*

This genus is founded upon the characters of one sex, and those characters are so anomalous, as to leave upon my mind considerable doubt as to the correctness of determining it to be the female; the antennæ are twelve-jointed, and the abdomen is furnished with a sting, these are, no doubt, the normal characteristics of the female, but the abdomen is composed apparently of seven segments; it has undoubtedly seven distinct plates above, whilst beneath the number is only six; I have therefore regarded the apical dorsal plate as a sheath or component part of the exerted aculeus. That the insect belongs to the *Scoliide*, I think is certain; the prolongation of the thorax to the insertion of the wings, and a similarity of the neururation of the latter to that of *Myzine*, induce me to place it next to that genus.

Pterombrus ænigmaticus.

(Pl. VI. fig. 1, and details 1a and 1b.)

Female. Length 5 lines. Head and thorax black, the abdomen red.

Head closely punctured, with the middle of the vertex, and a space around the ocelli, shining, and having a few scattered punctures; the face and cheeks with a thin griseous pubescence; the mandibles rufopiceous, with a pale spot at their base; the palpi pale testaceous. Thorax: the mesothorax and scutellum shining, with a few deep punctures; the metathorax transversely and coarsely rugose, the apex obliquely truncate; wings subhyaline, with a fuscous cloud at the base of the first and second discoidal cells; another cloud occupies the marginal cell, and crosses the wing as far as the inferior margin of the third discoidal cell; the nervures black; the tarsi as long as the legs, the spurs at the apex of the tibiæ pale testaceous. Abdomen ferruginous, smooth and shining.

Hab.—Brazil.

In the Collections of W. W. Saunders and F. Smith.

I have only seen two examples of this insect.

Fam. POMPILIDÆ.

Genus DOLICHURUS.

1. *Dolichurus carbonarius.*

Female. Length 3 lines. Shining black, with the metathorax subopaque.

Head: the face longitudinally and coarsely sculptured, the vertex smooth and shining; the antennæ inserted on each side of a concave tubercle situate at the base of the clypeus, the latter with a sharp carina down the middle. The prothorax transverse-quadrato, with a shining tuberculate process on each side, and a few transverse striæ in front; the mesothorax and scutellum smooth and shining; the metathorax above nearly quadrate, margined by an elevated carina, transversely and coarsely sculptured, and having three longitudinal carinæ scarcely extending to the posterior margin; the truncation rugose, a minute tooth at the lateral margins a little beyond the middle. The abdomen smooth and shining, and the margins of the first and second segments depressed.

Hab.—Australia (Champion Bay).

In the British Museum.

2. *Dolichurus ignitus*.

Female. Length $3\frac{3}{4}$ lines. Black and shining, the tip of the abdomen red.

Head: black, shining, and strongly punctured, the vertex most sparingly so; the clypeus smooth and shining, its anterior margin truncate and rufo-piceous; the mandibles ferruginous, their extreme base and apex black. The pro- and meso-thorax shining; the metathorax with the margins above carinate, with a central and two lateral carinæ, between which is a series of transverse elevations irregular and ill-defined; the truncate portion is coarsely rugose, and the lateral margins have a minute tooth beyond the middle; the wings hyaline and iridescent; the outer margin of the tegulæ piceous; the tarsi, and the anterior tibiæ obscurely ferruginous. Abdomen shining and impunctate; the margins of the two basal segments constricted; the two apical segments ferruginous.

Hab.—Port Natal.

In F. Smith's Collection.

3. *Dolichurus taprobanae*.

Male. Length $4\frac{1}{4}$ lines. Black, smooth, and shining.

Head: the face longitudinally rugulose, a few scattered punctures before the ocelli, with the vertex impunctate; the clypeus with a central elevated carina; the palpi pale testaceous; the tubercle in the middle of the face deeply concave. Thorax: the mesothorax with a few fine shallow punctures; the metathorax margined above, with two approximate carinæ in the centre, and another on each side, the interspaces rugose; the truncation rugose, with a stout tooth in the middle of the lateral margins; the wings hyaline and iridescent, the nervures black; the thorax is strongly and closely punctured at the sides and beneath. Abdomen smooth, shining, and impunctate.

Hab.—Ceylon.

In F. Smith's Collection.

Fam. LARRIDÆ.

Genus LARRADA.

Larrada chrysonota.

Female. Length $6\frac{1}{4}$ lines. Black, and adorned with silvery pile, the mesothorax clothed above with golden pile.

Head: the face, as high as the insertion of the antennæ, with silvery pubescent pile, above with golden; the cheeks and base of the mandibles silvery. Thorax: a dense golden pubescent pile on the mesothorax, and a changeable thin silvery one on other parts, on the apex of the sides of the metathorax it is dense and brilliant; the legs have a glittering changeable silvery pile; the anterior wings and apex of the posterior pair fusco-hyaline. The abdomen has a chequered brilliant silvery pile above and beneath; the apical margins of the segments above, and the middle of the segments, are splendidly brilliant and glittering.

Hab.—Australia (Champion Bay).

In the British Museum.

Genus AULACOPHILUS, n. g.

Head as wide as the thorax; eyes large, their inner orbit deeply emarginate; the ocelli in an equilateral triangle on the vertex; the antennæ inserted at the base of the clypeus, at an equal distance from each other and the inner margin of the eyes; the anterior margin of the clypeus rounded; the mandibles arcuate, edentate, acute at their apex; the antennæ thickened towards their apex, the scape obconic, the second joint subglobose. Thorax oblong-ovate, the collar transverse, the posterior margin arcuate; the metathorax oblong, rounded behind; legs simple, the anterior and intermediate tibiæ with a single spine at their apex; *the anterior wings with one elongate marginal, and two submarginal cells, the first twice the length of the second; the first recurrent nervure uniting with the first transverso-medial nervure; the second received a little within the second submarginal cell.* Abdomen heart-shaped; the first segment formed into an elongate petiole terminating in a clavus at its apex.

Aulacophilus vespoides.

(Plate VI. fig. 4, and details 4a and 4b.)

Female. Length 5 lines. Black, and ornamented with golden pubescence.

Head: the clypeus and the sides of the face, as high as the emargination of the eyes, with dense golden pubes-

cence; the tips of the mandibles, and the three basal joints of the antennæ, ferruginous. Thorax: the posterior margin of the collar and of the scutellum, the post-scutellum and the metathorax, with golden pubescence; the anterior coxæ with golden pubescence in front; the sides of the thorax obliquely striate beneath the wings; the metathorax with a longitudinal central channel, most deeply impressed towards the apex; the legs obscurely ferruginous, the anterior pair brightest; the wings hyaline, with the anterior margin of the superior pair fuscous. Abdomen: the petiole deeply channelled above, and also at the sides; the channel above with golden pubescence, the apical margin of the club as well as the apical margins of the other segments bordered with golden pubescence; beneath, smooth and shining, with the margins of the segments rufo-piceous.

Hab.—Brazil.

In F. Smith's collection.

This insect has the general aspect of a species of the genus *Polybia* belonging to the *Vespidæ*.

Fam. NYSSONIDÆ.

Genus ACANTHOSTETHUS, n. g.

Head scarcely as wide as the thorax; eyes lateral, large and ovate; ocelli placed in a curve on the vertex, the posterior pair in a line with the summit of the eyes; antennæ approximate at the base, inserted at the base of the clypeus; the scape obconic, the second joint subglobose, the flagellum slightly increasing in thickness towards the apex; the clypeus transverse, its anterior margin nearly straight, its lateral angles sub-dentate; mandibles arcuate, edentate, and acute at their apex; the labrum concealed, transverse. Thorax ovate; the collar transverse; the scutellum subquadrate; the metathorax having on each side at its posterior extremity a stout acute spine; *superior wings with one marginal and two complete submarginal cells; the marginal cell elongate, extending more than half-way towards the extremity of the wing; the first submarginal longer than the marginal, and more than twice the length of the second submarginal cell, which is triangular; the first recurrent nervure entering the first submarginal cell towards its apex, the second recurrent*

nervure uniting with the first transverso-cubital nervure.
Abdomen subsessile, ovoido-conic; the first ventral segment produced at the base, forming an obtuse angle. (Female.)

Acanthostethus basalis.

(Plate VI. fig. 3, and details 3a and 3b.)

Female. Length 4 lines. Black, with the collar and base of the abdomen red.

Head, thorax, and base of the abdomen coarsely and deeply punctured, the rest of the abdomen more finely and distantly punctured, and slightly shining. The mandibles, the scape, and the three following joints of the antennæ ferruginous beneath; the tips of the mandibles black. The collar, tubercles, tegulæ, and the margins of the mesothorax opposite to them, the tips of the metathoracic spines, and the legs, ferruginous; the wings subhyaline, the nervures black. Abdomen: the base rounded, the segment short, ferruginous, with the apical margin pale yellow; the second segment black, with its apical margin yellow, the sides of the segment are suffused with obscure ferruginous, as well as the edge of the narrow yellow margin; the following segments are obscure ferruginous, the third segment as well as the apical one black at the basal margin, in the apical one the black forms an elongated spot.

Hab.—Australia.

In the British Museum.

The general appearance of this insect is that of a very large example of the *Nysson dimidiatus* of Europe.

Genus *MISCOTHYRIS*, n. g.

Head transverse, about the width of the thorax, eyes ovate, very large and occupying the larger part of the head; the ocelli placed in a triangle on the vertex; the antennæ inserted a little above the base of the clypeus, approximate at their base, the flagellum sub-clavate; the mandibles arcuate, bidentate at their apex; the clypeus triangular, its anterior margin slightly rounded; the

labrum concealed. The thorax oval; the collar transverse and linear; the scutellum transverse; the metathorax short, and truncate posteriorly; the superior wings with one elongate marginal cell tapering to a point at the apex; three submarginal cells, the first being three-fourths of the length of the second and third, the second oblong-quadrate, and narrowed towards the marginal cell, the third oblique, and widest at its extremity; the legs of moderate length; the posterior tibiæ incrassate, slightly curved and denticulate on their outer margin. Abdomen subtruncate at the base, incurved and tapering to its apex; in the male, the second segment is produced into a compressed tubercle beneath.

Miscothyris thoracicus.

(Plate VI. fig. 5, and details 5a and 5b.)

Male. Length $4\frac{1}{2}$ lines. Black, an interrupted line on the collar, the post-scutellum, two large spots on the second segment of the abdomen, and a transverse one on the apical margins of the fifth and sixth segments in the middle, all orange.

Head: the clypeus with the basal half yellowish-white, a minute spot above the clypeus, the scape in front, and a narrow line at the inner margin of the eyes not running quite so high as the anterior ocellus, of the same colour as the clypeus; the head is finely shagreened and semi-opaque. Thorax: sculptured similarly to the head, with the scutellum shining, and sparingly punctured at its base; the post-scutellum is smooth shining orange; the wings fusco-hyaline, with their base and apex clear hyaline; a central small shining triangular space at the margin of the truncation of the metathorax, which is obliquely and finely striate; the tibiæ, tarsi and knees ferruginous; the anterior tibiæ yellow at their apex beneath, the basal joint of the posterior tarsi white. Abdomen finely shagreened, two large oblong orange spots on the second segment, pointed inwardly, and nearly meeting in the centre; a transverse orange lunate spot on the centre of the apical margin of the fifth and sixth segments.

Hab.—Australia (Champion Bay).

In the British Museum.

Fam. MASARIDÆ.

Genus PARAGIA.

1. *Paragia excellens*.

Female. Length 7 lines. Black; the head and thorax ornamented with orange, the legs of the same colour; the three basal segments of the abdomen orange.

Head: very closely punctured; the clypeus produced, its anterior margin slightly arched; the mandibles longitudinally grooved and punctured, ferruginous, with their margins and teeth black; the clypeus and a semi-ovate spot above, orange, the anterior margin of the former black. The thorax rugose; the prothorax, a subquadrate spot beneath the wings, the scutellum, an oblong-quadrate spot before it on the mesothorax, a narrow line at the sides passing beyond the tegulæ to the impressed line that runs backwards to the scutellum, a minute spot on each side beyond the line, the spine and lateral margins of the metathorax, and a central elongate spot, bright orange; the legs pale orange-red; the wings hyaline, with a dark fuscous line occupying the marginal and first submarginal cells, and running from thence half-way towards the base of the wing; the tegulæ pale orange. Abdomen: the first segment orange, with its base black, the second orange, with its extreme lateral and basal margins black; the third segment orange, with a minute triangular central black spot at its base; the other segments black, with the extreme apex of the terminal one orange; beneath, the second segment has a tri-furcate orange apical margin, the third segment orange, with its basal margin narrowly black.

Male. This sex differs only in having the clypeus entirely yellow, a yellow line at the inner orbits of the eyes.

Hab.—Australia (Champion Bay).

In the British Museum.

2. *Paragia sobrina*.

Female. Length 7 lines. The head and thorax ornamented with orange spots, the first and third segments of the abdomen orange.

This species is very like *P. excellens*; the head is the same in colour and sculpture; the thorax is also very

similar, but the two minute orange spots on the mesothorax are wanting; the scutellum is broader and more quadrate, the posterior angles rounded, and it is not narrowed posteriorly as in *P. excellens*; the abdomen has the first, third, and apical segments yellow; in other respects the two species agree in colour, sculpture and form, and possibly one is a variety of the other.

Hab.—Australia (Champion Bay).

In the British Museum.

In the Transactions of this Society (third series, vol. ii. p. 393) I described three new species of *Paragia*; of one of these, *P. vespiformis*, only the female was then known to me; subsequently, however, both sexes were taken by Mr. Du Boulay, and the male was described in the Transactions for 1868 (p. 250); this sex is remarkable for the extraordinary form of the basal segment of the abdomen, I have therefore given a figure of that sex in the plate that illustrates this paper (Pl. VI. fig. 2).

Since I published the last consecutive list of the species of the genus *Paragia*, numbering thirteen, I have added three in the volume for 1868, two others are described in the present paper, making the number of known species to be eighteen.

Fam. EUMENIDÆ.

Genus RHYNCHIUM.

Rhynchium magnificum.

Female. Length $10\frac{1}{2}$ lines. Black; head, thorax anteriorly, scutellum, and apical half of the abdomen, orange.

Head: orange, with the tips of the antennæ fuscous; the mandibles ferruginous, armed with five teeth, which are black, as well as the outer margin at the base; the prothorax, a spot beneath the wings, the mesothorax above, and the scutellum, bright orange; the metathorax black, its lateral margins serrate, concave behind, the concavity obliquely striate; the tegulæ orange, the wings flavo-hyaline, but dark fuscous with a violet or purple iridescence from the base of the marginal cell to their apex; the anterior legs, except their coxæ, the intermediate femora in front towards their apex, and the tibiæ beneath, orange; the posterior tibiæ more or less orange-red beneath; the apical joints of the tarsi reddish. Abdomen:

the basal segment, and basal half of the second segment, black, both entirely so beneath; the rest of the segments orange.

Hab.—Australia (Nicol Bay).

In the British Museum.

Explanation of Plate VI.

- Fig. 1. *Pterombrus enigmaticus*, and details.
2. *Paragia vespiformis*, ♂.
3. *Acanthostethus basalis*, and details.
4. *Aulacophilus vespoides*, and details.
5. *Miscothyris thoracicus*, and details.
6. Anterior wing of *Parapison rufipes*.
7. „ „ *Pisonitus rugosus*.